

NPDES Permitting of CAFOs in Missouri

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Missouri Department of Natural Resources
Water Protection Program
Water Pollution Control Branch

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Introduction

The U.S. EPA has delegated authority to Missouri to issue National Pollutant Discharge Elimination System (NPDES) permits under the Clean Water Act. In Missouri, the Clean Water Commission has the authority for this program with the Missouri Department of Natural Resources Water Protection Program serving as the staff for the Clean Water Commission. Missouri has established statutes, regulations and standards for entities to obtain NPDES permits within that administrative system.

The following guidance is intended to assist an animal feeding operation in understanding the NPDES permitting process in Missouri. While this guidance is helpful in applying for a permit, it does not contain all of the information and details that may be necessary. Information contained within this document can change. The producer is encouraged to contact the department early in the planning stage if specific questions or unusual circumstance arise. In addition, the applicant should be familiar with the applicable laws and regulations.

Permit Applicability

The first step in the permit process is determining if a permit is required. In order for an operation to be required to obtain a NPDES permit, the animal feeding operation must be defined as a Concentrated Animal Feeding Operation (CAFO). The following is the definition of a CAFO:

An operating location where animals have been, are, or will be stabled or confined and fed or maintained for a total of forty-five (45) days or more in any twelve (12)-month period, and a ground cover of vegetation is not sustained over at least fifty percent (50%) of the animal confinement area and meets one (1) of the following criteria: A. Class I operation; or B. Class II operation that discharges through a man-made conveyance or where pollutants are discharged directly into waters of the state which originate outside of and pass over, or through the operation or otherwise come into direct contact with the animals confined in the operation.

The class is a size category that is based upon the design animal units or animal unit equivalents at an operation. The Class I category is further broken down into subsets of Class IA, IB and IC. Operations that are smaller than the Class II category are unclassified. Table 1 presents the classifications and animal number thresholds for each classification.

The animal unit is a unit of measurement to compare various animal types at a CAFO. One beef feeder is used as the reference for comparison. The total animal units at each operating location are determined by adding the animal units for each animal type. The animal unit equivalent is an equivalent animal type and weight that has a similar amount of manure produced as one of the listed animal unit categories. Table 2 is a listing of various animal units.

In addition to being defined as a CAFO, an operation may also be designated as a CAFO. The department may designate an operation as a CAFO for reasons such as to correct noncompliance, when an unauthorized discharge has occurred, or when a discharge results in a violation of water quality standards. Those designated CAFOs must also obtain a NPDES permit.

Table 1 Animal Thresholds

	Class IA 7,000 AUs*	Class IB 3,000 to 6,999 AUs	Class IC 1,000 to 2,999 AUs	Class II 300 to 999 AUs
Beef feeder or slaughter animal	7,000	3,000 to 6,999	1,000 to 2,999	300 to 999
Horse	3,500	1,500 to 3,499	500 to 1,499	150 to 499
Dairy cow	4,900	2,100 to 4,899	700 to 2,099	200 to 699
Swine weighing over 55 lbs.	17,500	7,500 to 17,499	2,500 to 7,499	750 to 2,499
Swine weighing under 55 lbs.	105,000	45,000 to 104,999	15,000 to 44,999	4,500 to 14,999
Sheep	70,000	30,000 to 69,999	10,000 to 29,999	3,000 to 9,999
Chicken laying hens	210,000	90,000 to 209,999	30,000 to 89,999	9,000 to 29,999
Chicken layer pullets	420,000	180,000 to 419,999	60,000 to 179,999	18,000 to 59,999
Turkeys	385,000	165,000 to 384,999	55,000 to 164,999	16,500 to 54,999
Broiler Chickens	700,000	300,000 to 699,999	100,000 to 299,999	30,000 to 99,999

* Animal Units (AUs)

Table 2 Animal Units

1 Animal Unit =

1.0	Beef feeder or slaughter animal	2.5	Swine weighing over 55 lbs.	30	Chicken laying hens
0.5	Horse	15	Swine weighing less than 55 lbs.	60	Chicken layer pullets
0.7	Dairy cow	10	Sheep	55	Turkeys
				100	Broiler chickens

Permit Process

Types of Permits

There are two stages to the permit process. The applicant is first required to obtain a construction permit prior to building or modifying an operation. After the construction is completed, the applicant must then obtain an operating permit prior to utilizing the newly constructed operation. There are two types of operating permits: a general permit and a site-specific permit.

CAFOs, with the exception of Class IA CAFOs, may apply for a general permit. The general permit for CAFOs is valid for a five-year period. The permit requires the same effluent limits, operating conditions and monitoring requirements for each operation. All facilities receiving a general permit must adhere to the conditions contained therein until the date of expiration or until the facility obtains a site-specific permit. The expiration date is the same for all general permit holders regardless of the date that they received the permit.

CAFOs alternatively may apply for a site-specific permit. Certain operations, such as Class IA CAFOs or those required to do so by the department, must apply for a site-specific permit. A site-specific permit is typically valid for a five-year period.

A fee is required for each type of permit. These fees must be paid before a permit can be issued. Table 3 contains a list of the fees for each type of permit:

Table 3 Fees

Construction Permit	\$ 750.00
Construction Permit for Sewer Extension	\$ 300.00
General Permit	\$ 150.00
Site-Specific Permit	\$5,000.00 per year

Receiving a CAFO permit does not relieve an operation from obtaining other permits that may be required. For example, an operation that will be undergoing construction that will disturb one acre or more of land is required to obtain a land disturbance permit. A CAFO may also be required to comply with county or local ordinances.

Construction Permit Applications

The construction permit application process begins with the operation concept. During the planning stages of the operation and site selection, the applicant should be considering permit requirements and specific water quality issues at the site. Some of the things that should be considered during the planning stages are buffer distances, local geology and soils, available land application area, local climatic information, etc. These items play a large role in the overall design and operation.

After a site concept and design has been selected, the producer will need to submit a construction permit application to the department. The application should be submitted at least 180 days prior to the expected beginning of construction. The construction permit application consists of a Form F and supporting documents. The supporting documents need to contain enough detail to ensure that all environmental design requirements are being met. Table 4 is a list of items that must be included in the application.

Table 4 Construction Permit Completeness Items

1. Form F
 - a. Signature
2. Fee
3. Neighbor Notice Proof of Notification
4. Topography Map
5. General Layout Drawing
6. Nutrient Management Plan
7. Engineering Report
 - a. P.E. Certification
 - b. P.E. Stamp on Drawings
 - c. Narrative Design Summary
 - d. Design Calculations
 - e. Construction Specifications
 - f. Operation and Maintenance Plan
8. Geohydrologic Evaluation (for earthen basins)
9. Soils Report
 - a. Construction Materials
 - b. Land Application Sites

The department will conduct a completeness check of the application. This check is meant to determine that the applicant has attempted to address the required items listed above. In the event that the application is found to be incomplete, the applicant will be notified of the deficiency and will be provided an opportunity to correct the deficiency.

Once the application is complete, the review of the application begins. During this review, the department checks compliance with applicable laws and regulations, determines if appropriate design standards have been met and reviews the nutrient management plan. Questions or comments that the department has on the application are directed to the applicant or engineer for response. The department can proceed in preparing a construction permit once all issues on the application have been resolved.

The process for issuing the construction permit depends upon which type of operating permit will be sought. For a general operating permit, a response to any comments from the neighbor notice will be prepared along with the construction permit if applicable. Those responses will be sent out when the construction permit is issued or denied. For a site-specific permit, the operating permit must be public noticed for at least 30 days. After the public notice period ends, the construction permit proceeds in the same manner as that for the general permit.

A construction permit is normally issued for a period of one year. The applicant may apply for one extension of the permit. To request an extension, the permittee should submit a request to the department. The request must be submitted 30 days prior to the expiration of the permit and must show that there are no substantial changes in the original project.

Operating Permit Applications

After completing the construction project, the operation must apply for the operating permit. There are two types of operating permits; the general operating permit and the site-specific operating permit, but the application procedure is the same for each one. The application should be submitted at least 30 days prior to the expected commencement of operations.

The application consists of another Form F, the application fee and supporting documents. At this time the Form F must contain a certification by a professional engineer licensed in Missouri. The operating permit application is checked for completion by the department prior to processing. An incomplete application will need to be corrected. Table 5 is a list of items that shall be included in the application.

Table 5 Operating Permit Completeness Check

1. Form F
 - a. Signature
 - b. P.E. Certification
2. Fee
3. As Built Drawings
4. Engineering Report for Deviations from Approved Plans

Once the department is satisfied with the content of the submitted application, the operating permit can be issued. In the case of a site-specific permit, the operating permit has already been prepared and public noticed. A site-specific permit will not require another public notice unless there were significant changes during construction. The operating permit can then be issued to the applicant, and the applicant can begin to utilize the newly constructed operations.

Permit Maintenance

Permit Transfer

If an operation changes ownership the permit must also be changed. The process for this depends upon the type of operation. A site-specific permit is transferable. In this case, the applicant submits a Form F to notify the department of the transfer. General permits and construction permits are not transferable. The new owner will need to apply for a new permit for these types. In any case, the original permittee retains responsibility for the operations until the time the new permit is issued.

Permit Renewal

All operating permits have an expiration date. The applicant is required to submit a renewal application at least 180 days prior to the expiration of the permit. The permit renewal consists of a Form F application. The Form F application must be accompanied by the application fee. If the applicant has submitted a timely application, the permit continues in the event that the department fails to take action upon the renewal application prior to the expiration date.

Permit Termination

In the event an operation closes, the permit must be terminated. Prior to terminating the permit, however, the operations must close the waste structures. A permit is required until all waste, wastewater and sludges have been removed. At that time, the applicant may submit a Form H notifying the department of the closure of the operation.